AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the Application.

LISTING OF CLAIM

1. (original) A compound according to Formula I,

I

or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein,

B, D, and E are each independently either =N- or = $C(R^2)$ -, provided at least one of B, D, and E is =N-;

at each occurance, each of R^1 , R^2 , and R^3 is independently selected from -H, halogen, trihalomethyl, -CN, -NO₂, -OR⁵, -N(R⁵)OR⁵, -ON(R⁵)R⁵, -N(R⁵)N(R⁵)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, -C(O)N(R⁵)R⁵, -N(R⁵)SO₂R⁵, -N(R⁵)C(O)R⁵, -N(R⁵)CO₂R⁵, -C(O)R⁵, -C(=NR⁷)N(R⁵)R⁵, -C(=NR⁷)R⁵, -C(=NR⁷)OR⁵, -N(R⁵)C(=NR⁷)N(R⁵)R⁵, optionally substituted lower alkyl, optionally substituted lower alkynyl, optionally substituted aryl, optionally substituted heterocyclylalkyl, and optionally substituted arylalkyl;

n is zero to five;

 R^4 is selected from -H, halogen, -CN, -NO₂, -N(R^5)OR⁵, -ON(R^5)R⁵, -N(R^5)N(R^5)R⁵, -OR⁵, -N(R^5)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R^5)R⁵, -CO₂R⁵, -C(O)N(R^5)R⁵, -N(R^5)SO₂R⁵, -N(R^5)C(O)R⁵, -N(R^5)CO₂R⁵, -C(O)R⁵, -C(=NR⁷)N(R^5)R⁵, -C(=NR⁷)R⁵, -C(=NR⁷)OR⁵, -N(R^5)C(=NR⁷)N(R^5)R⁵, optionally substituted lower alkyl, optionally substituted lower alkynyl,

- optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, and optionally substituted arylalkyl;
- R² and R³, together with the atom or atoms to which they are attached, can combine to form a three- to seven-membered optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted cycloalkyl;
- R² and R⁴, together with the atom or atoms to which they are attached, can combine to form a three- to seven-membered optionally substituted heterocyclyl, optionally substituted aryl, or optionally substituted cycloalkyl;
- each R⁵ is independently selected from -H, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower arylalkyl, optionally substituted heterocyclyl, optionally substituted lower heterocyclylalkyl, and a single bond to an atom of R¹;
- two of R⁵, together with the atom or respective atoms to which they are attached, can combine to form an optionally substituted three- to seven-membered heterocyclic;
- R⁵ and R⁶, together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;
- R⁵ and R⁷, together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;
- each of X and Y is independently selected from -C(=O)-, $-C(R^6)R^6$ -, -O-, $-N(R^5)$ -, $-C(=NR^7)$ -, and $-S(O)_{0\cdot 2}$ -; provided when X is -O- or $-N(R^5)$ -, then Y cannot be $-C(H)R^{6a}$ -, where R^{6a} is $-C(R^{20})(R^{21})R^{22}$ wherein at least one of R^{20} , R^{21} and R^{22} is selected from phenyl, napthyl, cyclohexyl, dihydronapthyl tetrahydronapthyl, and a five- to six-membered heteroaryl, each optionally substituted;

or X and Y can combine to form either $-C(R^6)=C(R^6)$ - or -C=C-;

Z is selected from O, S, and a double bond to an atom of R¹;

A is either $-N(R^5)$ - or a single bond;

- each R^6 is independently selected from -H, halogen, trihalomethyl, -CN, -NO₂, -NH₂, -OR⁵, -N(R⁵)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, -C(O)N(R⁵)R⁵, -N(R⁵)SO₂R⁵, -N(R⁵)C(O)R⁵, -N(R⁵)CO₂R⁵, -C(O)R⁵, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted arylalkyl, and a single bond to an atom of R² of D or E when said either D or E is =C(R²)-;
- two of R^6 , together with the atom or atoms to which they are attached, can combine to form one of an optionally substituted three to seven-membered alicylic, an optionally substituted three to seven-membered heteroalicylic, and a double bond to an atom of R^2 of D or E when said either D or E is $=C(R^2)$ -;
- each R⁷ is independently selected from -H, -CN, -NO₂, -N(R⁵)R⁵, -OR⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, optionally substituted lower alkyl, optionally substituted lower alkynyl, and a single bond to a carbon of J; and
- J is selected from an optionally substituted five- to ten-membered aryl and an optionally substituted five- to ten-membered heteroaryl;
- provided the compound is not one of: 2-(2-amino-5-cyano-6-methylsulfanyl-pyrimidin-4ylsulfanyl)-N-(3-trifluoromethyl-phenyl)-acetamide, 2-{[2-amino-5-cyano-6-(methyl-thio)pyrimidin-4-yl]thio}-N-[3-(butyloxy)phenyl]acetamide, 2-{[2amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-benzothiazol-2-2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(5ylacetamide, ethyl-1,3,4-thiadiazol-2-yl)acetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(4-methyl-1,3-thiazol-2-yl)acetamide, 2amino-4-{[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio}-6-(methylthio)pyrimidine-5-carbonitrile, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-thiazol-2-ylacetamide, 2-(5-cyano-2-5-amino-2methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, methylsulfanyl-thieno[2,3-d]pyrimidine-6-carboxylic acid phenylamide, 2-(6amino-5-cyano-2-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide,

4,5-diamino-2-(2-methoxy-ethoxy)-thieno[2,3-d]pyrimidine-6-carboxylic acid phenylamide, 2-(5-cyano-6-phenyl-2-phenylcarbamoylmethylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, and a 2-(6-amino-3,5-dicyano-pyridin-2-ylsulfanyl)-N-phenyl-acetamide derivative.

- 2. (original) The compound according to claim 1, wherein J is either a six-membered aryl or a five- to six-membered heteroaryl.
- 3. (original) The compound according to claim 2, wherein D is $=C(R^2)$ -.
- 4. (original) The compound according to claim 3, wherein R^4 is $-N(R^5)R^5$.
- 5. (original) The compound according to claim 4, of Formula II,

$$\begin{array}{c|c}
R^{5a} & R^{2a} \\
R^{5a} & R^{5b} & R^{2a}
\end{array}$$

II

wherein, R^1 , R^2 , R^3 , R^5 , n, B, E, X, and Y are as defined above; and Q is either =N- or =C(H)-.

- 6. (original) The compound according to claim 5, wherein R^{2a} is selected from halogen, -CN, $-C(=O)N(R^5)R^5$, $-CF_3$, $-CO_2R^5$, $-C(R^5)=C(R^5)R^5$, $-C\equiv C-R^5$, and $-NO_2$.
- 7. (original) The compound according to claim 6, wherein at least one of R^{5a} and R^{5b} is -H.
- 8. (original) The compound according to claim 7, wherein R^3 is selected from -OR⁵, -NR⁵R⁵, and -S(O)₀₋₂R⁵.
- 9. (original) The compound according to claim 8, wherein at least one of B and E is =N-.
- 10. (original) The compound according to claim 9, wherein R^1 is selected from halogen, $-OR^5$, $-NR^5R^5$, $-S(O)_{0-2}R^5$, $-NO_2$, perhaloalkyl, optionally substituted lower alkyl, optionally substituted aryl, and optionally substituted arylalkyl.

- 11. (original) The compound according to claim 10, wherein R^1 is selected from halogen, $-OR^5$, $-NR^5R^5$, $-S(O)_{0-1}R^5$, $-NO_2$, perhaloalkyl, and optionally substituted lower alkyl.
- 12. (original) The compound according to claim 11, wherein A is $-N(R^5)$ -.
- 13. (original) The compound according to claim 12, of Formula III,

$$\begin{array}{c|c}
R^{5a} & & & \\
N & & \\
N & & & \\
N &$$

III

wherein, R^3 , R^5 , X, Y, and Q are as defined above; R^{1a} is selected from halogen, lower perfluoroalkyl, -NO₂, -OR⁵, and optionally substituted C₁₋₄alkyl; and R^{1b} is selected from halogen, -OR⁵, -N(R^5) R^5 , -SR⁵, perfluoroalkyl, and optionally substituted lower alkyl.

- 14. (original) The compound according to claim 13, wherein R^{1a} is selected from NO₂, halogen, perfluoroalkyl, haloalkyl, optionally substituted C_{1-2} alkyl, and optionally substituted -O- C_{1-2} alkyl.
- 15. (original) The compound according to claim 14, wherein R^3 is selected from optionally substituted -O-C₁₋₄alkyl, -O-C₁₋₄perfluoroalkyl, optionally substituted -N(H)C₁₋₄alkyl, optionally substituted -N(C₁₋₄alkyl)C₁₋₄alkyl, optionally substituted -S(O)₀₋₂-C₁₋₄alkyl, and optionally substituted -S(O)₀₋₂-C₁₋₄perfluoroalkyl.
- 16. (original) The compound according to claim 15, wherein Y is either -N(H)- or $-C(R^6)R^6$ -.
- 17. (original) The compound according to claim 16, wherein X is selected from -O-, - $N(R^5)$ and -S-.
- 18. (original) The compound according to claim 17, wherein Y is $-C(R^6)R^6$ -; wherein each R^6 is independently selected from -H, halogen, trihalomethyl, -NH₂, optionally substituted -O-C₁₋₄alkyl, optionally substituted -N(H)C₁₋₄alkyl, optionally substituted -S-

C₁₋₄alkyl, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.

- 19. (original) The compound according to claim 18, wherein Y is $-C(H)R^6$ -; wherein R^6 is independently selected from -H, halogen, trihalomethyl, -NH₂, optionally substituted -O-C₁₋₄alkyl, optionally substituted -N(H)C₁₋₄alkyl, optionally substituted -S-C₁₋₄alkyl, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.
- 20. (original) The compound according to claim 19, wherein Q is =C(H)-.
- 21. (original) A compound according to Formula IV,

$$\begin{array}{c|c}
R^3 \\
R^4 \\
N \\
X
\end{array}$$

$$\begin{array}{c}
R^2 \\
N \\
J
\end{array}$$

$$\begin{array}{c}
(R^1)_n \\
IV
\end{array}$$

or a pharmaceutically acceptable salt, hydrate, or prodrug thereof, wherein,

R¹ is selected from halogen, -OR⁵, -N(R⁵)R⁵, -S(O)₀₋₂R⁵, -NO₂, -C(O)R⁵, perhaloalkyl, optionally substituted lower alkyl, optionally substituted aryl, and optionally substituted arylalkyl.

n is zero to five;

 R^2 is selected from halogen, -CN, -C(=O)N(R^5) R^5 , -CF₃, -CO₂ R^5 , -C(R^5)=C(R^5) R^5 , -C=C- R^5 , and -NO₂;

 R^3 is selected from -H, halogen, trihalomethyl, -CN, -NO₂, -OR⁵, -N(R⁵)OR⁵, -ON(R⁵)R⁵, -N(R⁵)N(R⁵)R⁵, -N(R⁵)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, -C(O)N(R⁵)R⁵, -N(R⁵)SO₂R⁵, -N(R⁵)C(O)R⁵, -N(R⁵)CO₂R⁵, -C(O)R⁵, -C(=NR⁷)N(R⁵)R⁵, -C(=NR⁷)OR⁵, -N(R⁵)C(=NR⁷)N(R⁵)R⁵, optionally substituted lower alkenyl, optionally substituted lower

- alkynyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, and optionally substituted arylalkyl;
- R^4 is selected from -CN, halogen, -NO₂, -N(R^5)OR⁵, -ON(R^5)R⁵, -N(R^5)N(R^5)R⁵, -OR⁵, -N(R^5)R⁵, -SO₂N(R^5)R⁵, -C(O)N(R^5)R⁵, -C(=NR⁷)N(R^5)R⁵, -C(=NR⁷)R⁵, -C(=NR⁷)OR⁵, -N(R^5)C(=NR⁷)N(R^5)R⁵, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl;
- each R⁵ is independently selected from -H, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted lower arylalkyl, optionally substituted heterocyclyl, and optionally substituted lower heterocyclylalkyl;
- two of R⁵, together with the atom or respective atoms to which they are attached, can combine to form an optionally substituted three- to seven-membered heterocyclic;
- R⁵ and R⁶, together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;
- R⁵ and R⁷, together with the atom or atoms to which they are attached, can combine to form a five- to seven-membered optionally substituted heterocyclyl;
- each of X and Y is independently selected from -C(=O)-, $-C(R^6)R^6$ -, -O-, $-N(R^5)$ -, $-C(=NR^7)$ -, and $-S(O)_{0\cdot 2}$ -; provided when X is -O- or $-N(R^5)$ -, then Y cannot be $-C(H)R^{6a}$ -, where R^{6a} is $-C(R^{20})(R^{21})R^{22}$ wherein at least one of R^{20} , R^{21} and R^{22} is selected from phenyl, napthyl, cyclohexyl, dihydronapthyl tetrahydronapthyl, and a five- to six-membered heteroaryl, each optionally substituted;
- or X and Y can combine to form either $-C(R^6)=C(R^6)$ or -C=C-;
- each R^6 is independently selected from -H, halogen, trihalomethyl, -CN, -NO₂, -NH₂, -OR⁵, -N(R⁵)R⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, -C(O)N(R⁵)R⁵, -N(R⁵)SO₂R⁵, -N(R⁵)CO₂R⁵, -C(O)R⁵, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted heterocyclyl, optionally substituted heterocyclylalkyl, optionally substituted arylalkyl, and a single bond to an atom of R¹;

- two of R⁶, together with the atom or atoms to which they are attached, can combine to form either an optionally substituted three to seven-membered alicylic or an optionally substituted three to seven-membered heteroalicylic;
- each R⁷ is independently selected from -H, -CN, -NO₂, -N(R⁵)R⁵, -OR⁵, -S(O)₀₋₂R⁵, -SO₂N(R⁵)R⁵, -CO₂R⁵, optionally substituted lower alkyl, optionally substituted lower alkynyl, and a single bond to a carbon of J; and
- J is selected from an optionally substituted five- to ten-membered aryl and an optionally substituted five- to ten-membered heteroaryl;
- provided the compound is not one of: 2-(2-amino-5-cyano-6-methylsulfanyl-pyrimidin-4ylsulfanyl)-N-(3-trifluoromethyl-phenyl)-acetamide, 2-{[2-amino-5-cyano-6-(methyl-thio)pyrimidin-4-yl]thio}-N-[3-(butyloxy)phenyl]acetamide, 2-{[2amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-benzothiazol-2ylacetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(5ethyl-1,3,4-thiadiazol-2-yl)acetamide, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-(4-methyl-1,3-thiazol-2-yl)acetamide, amino-4-{[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio}-6-(methylthio)pyrimidine-5-carbonitrile, 2-{[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]thio}-N-1,3-thiazol-2-ylacetamide, 2-(5-cyano-2methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, 5-amino-2methylsulfanyl-thieno[2,3-d]pyrimidine-6-carboxylic acid phenylamide, 2-(6amino-5-cyano-2-methylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, 4,5-diamino-2-(2-methoxy-ethoxy)-thieno[2,3-d]pyrimidine-6-carboxylic phenylamide, 2-(5-cyano-6-phenyl-2-phenylcarbamoylmethylsulfanyl-pyrimidin-4-ylsulfanyl)-N-phenyl-acetamide, and a 2-(6-amino-3,5-dicyano-pyridin-2ylsulfanyl)-N-phenyl-acetamide derivative.
- 22. (original) The compound according to claim 21, wherein R⁴ is -NR^{5a}R^{5b}; wherein at least one of R^{5a} and R^{5b} is -H.

- 23. (original) The compound according to claim 22, wherein X is selected from -O-, - $N(R^5)$ -, and - $S(O)_{0-2}$ -.
- 24. (original) The compound according to claim 23, wherein Y is either $-C(R^6)R^6$ or $-N(R^5)$ -.
- 25. (original) The compound according to claim 24, wherein J is either phenyl or pyridyl.
- 26. (original) The compound according to claim 25, wherein R⁴ is -NH₂.
- 27. (original) The compound according to claim 26, wherein at least one of R^1 is selected from halo, -NO₂, -OR⁵, perfluoroalkyl, haloalkyl, and optionally substituted C_1 . 4alkyl.
- 28. (original) The compound according to claim 27, of Formula V,

$$H_2N$$
 N
 X
 Y
 N
 Q
 R^{1a}
 R^{1a}
 R^{1b}

wherein R^1 , R^3 , X, and Y are as defined above; and Q is either =N- or =C(H)-.

- 29. (original) The compound according to claim 28, wherein R^{1a} is selected from halo, lower perfluoroalkyl, -NO₂, optionally substituted -O-C₁₋₄alkyl, and optionally substituted C₁₋₄alkyl.
- 30. (original) The compound according to claim 29, wherein R^3 is selected from optionally substituted -O-C₁₋₄alkyl, -O-C₁₋₄perfluoroalkyl, optionally substituted -N(H)C₁₋₄alkyl, optionally substituted -N(C₁₋₄alkyl)C₁₋₄alkyl, optionally substituted -S(O)₀₋₂-C₁₋₄alkyl, and optionally substituted -S(O)₀₋₂-C₁₋₄perfluoroalkyl.
- 31. (original) The compound according to claim 30, wherein Y is $-C(R^6)R^6$ -; wherein each R^6 is independently selected from -H, halogen, trihalomethyl, -NH₂, optionally substituted -O-C₁₋₄alkyl, optionally substituted -N(H)C₁₋₄alkyl, optionally substituted -S-

C₁₋₄alkyl, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.

- 32. (original) The compound according to claim 31, wherein Y is $-C(H)R^6$ -; wherein R^6 is independently selected from -H, halogen, trihalomethyl, -NH₂, optionally substituted -O-C₁₋₄alkyl, optionally substituted -N(H)C₁₋₄alkyl, optionally substituted -S-C₁₋₄alkyl, optionally substituted lower alkyl, optionally substituted heterocyclyl, and optionally substituted heterocyclylalkyl.
- 33. (original) The compound according to claim 32, wherein Q is =C(H)-.
- 34. (currently amended) The compound according to claim 1, selected from Table 3.

Table 3

Entry	Name	Structure
1	2-[(3-cyano-4,6-dimethyl-5- nitropyridin-2-yl)oxy]-N-[3- (trifluoromethyl)phenyl]acetamide	O_2N CN N O N CF_3
2	N ₂ (2 amino 6 chloropyrimidin 4 yl) N-[3- (trifluoromethyl)phenyl]glycinamide	H ₂ N N N N CF ₃
3	[2-amino-6 (methylthio)pyrimidin-4- yl]methyl [3- (trifluoromethyl)phenyl]carbamate	H ₂ N N CF ₃
4	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [5-(trifluoromethyl)pyridin-2- yl]acetamide	CF ₃

Table 3

Entry	Name	Structure
5	N ² -[2-amino-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	H_2N N N N N N N N N N
6	2-{[2-amino-6-(methylthio)pyrimidin- 4-yl]oxy} N-[3- (trifluoromethyl)phenyl]acetamide	S O N F F
7	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [3-(methyloxy)phenyl]acetamide	H_2N N N N N N N N N N
8	N ² -(2-amino-6-morpholin-4- ylpyrimidin-4-yl)-N-[3- (trifluoromethyl)phenyl]glycinamide	H_2N N N N N N N N N N
9	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- (4-chlorophenyl)acetamide	H_2N N N N N N N N N N
10	2-{[2-amino-6-(1H-1,2,3-benzotriazol-1-yloxy)pyrimidin-4-yl]thio}-N-[3-(trifluoromethyl)phenyl]acetamide	NH ₂ N N N N N N N N N N N N N N N N N N N

Table 3

Entry	Name	Structure
11	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- (3-chlorophenyl)acetamide	H ₂ N N S H
12	N ² -(2-amino-6-chloro-5- formylpyrimidin-4-yl)-N-[3- (trifluoromethyl)phenyl]glycinamide	CI CHO H ₂ N N N N CF ₃
13	N ² -[2-amino-5-formyl-6- (methylthio)pyrimidin-4-yl] N [3- (trifluoromethyl)phenyl]glycinamide	CHO H ₂ N N N CF ₃
14	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]oxy}-N- [3-(trifluoromethyl)phenyl]acetamide	H ₂ N N O H F F
15	2-[(2-amino-6-chloropyrimidin-4-yl)thio]-N-[3-(trifluoromethyl)phenyl]acetamide	CI S F F
16	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- methyl-N-[3- (trifluoromethyl)phenyl]acetamide	H ₂ N N S N CF ₃

Table 3

Entry	Name	Structure
17	N ² -[4-amino-6-(methylthio)-1,3,5- triazin-2-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	H_2N N N N N N N N N N
18	N ² -[4-(dimethylamino) 6- (methylthio) 1,3,5 triazin 2 yl] N [3- (trifluoromethyl)phenyl]glycinamide	S N N CF3
19	N ² -[4-(methylamino)-6-(methylthio)- 1,3,5-triazin-2-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	S N CF3
20	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	H_2N N N N N N N N N N
21	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [3-(trifluoromethyl)phenyl]acetamide	NH ₂ N N H F F
22	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [3-(butyloxy)phenyl]acetamide	NH ₂ N N N N N N N N N N N N N N N N N N N

Table 3

Entry	Name	Structure
23	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- 1,3-benzothiazol-2-ylacetamide	H_2N N S S HN S
24	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- (5-ethyl-1,3,4-thiadiazol-2- yl)acetamide	S N NH ₂
25	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- (4-methyl-1,3-thiazol-2-yl)acetamide	NH ₂ N N N N N N N N N N N N N N N N N N N
26	2-amino-4-{[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio}-6-(methylthio)pyrimidine-5-carbonitrile	S S S N N N N N N N N N N N N N N N N N
27	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- 1,3-thiazol-2-ylacetamide	HZ S S S S S S S S S S S S S S S S S S S
28	ethyl 5-[({[2-amino-5-cyano-6- (methylthio)pyrimidin 4- yl]thio}acetyl)amino]-4-cyano-3- methylthiophene-2-carboxylate	H ₂ N N S O NC O

Table 3

Entry	Name	Structure
29	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- pyridin-2-ylacetamide	H ₂ N S O
30	2-amino-4-({2-[2,5-bis(methyloxy)phenyl]-2-oxoethyl}thio)-6-(methylthio)pyrimidine-5-carbonitrile	H_2N N S CN O
31	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [4-fluoro-3- (trifluoromethyl)phenyl]acetamide	H_2N N S CN H_2N N S CF_3 F
32	2-[(2,6-diaminopyrimidin-4-yl)thio]- N-[4-fluoro-3- (trifluoromethyl)phenyl]acetamide	H ₂ N N H ₂ N N S CF ₃
33	2-[(2,6-diaminopyrimidin-4-yl)thio]- N-[3- (trifluoromethyl)phenyl]acetamide	H_2N H_2N N S CF_3
34	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [4-chloro-3- (trifluoromethyl)phenyl]acetamide	H_2N N S CN N S N S N S N S N S CF_3 CI

Table 3

Entry	Name	Structure
35	2-amino-4-(methylthio)-6-({2-oxo-1-[3-(trifluoromethyl)phenyl]pyrrolidin-3-yl}thio)pyrimidine-5-carbonitrile	H_2N N S CN CF_3
36	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [6-(trifluoromethyl)pyridin-2- yl]acetamide	H_2N N S CN H N S N N S N N S N N S N S N S N N S N S N N S N N S N N N S N N N S N N N N N S N
37	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [4-(trifluoromethyl)pyridin-2- yl]acetamide	H_2N N N S CN N N S N N N S N N S N N N S N
38	{6-(methylthio)-2- [(phenylmethyl)amino]pyrimidin-4- yl} methyl [3- (trifluoromethyl)phenyl]carbamate	S CF ₃
39	[6-(methylamino)-2- (methylthio)pyrimidin-4-yl]methyl [3- (trifluoromethyl)phenyl]carbamate	HN O CF ₃
40	{2-(methylthio)-6- {(phenylmethyl)amino]pyrimidin-4- yl}methyl [3- (trifluoromethyl)phenyl]carbamate	HN O H CF3

Table 3

Entry	Name	Structure
41	2-{[2-(acetylamino)-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [3-(trifluoromethyl)phenyl]acetamide	TZ ZH ST
42	(2S)-2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]oxy}-N- [3- (trifluoromethyl)phenyl]propanamide	-S N
43	2-[(2-amino-6-chloro-5- formylpyrimidin-4-yl)thio]-N-[3- (trifluoromethyl)phenyl]acetamide	NH ₂ N N H F F
44	N ² -[2-amino-5-(hydroxymethyl)-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	NH ₂ N N F F
45	2-{[2-amino-5-formyl-6- (methylamino)pyrimidin-4-yl]thio}- N-[3- (trifluoromethyl)phenyl]acetamide	NH ₂ N N N N N N N N N N N N N N N N N N N
46	2-{[2-amino-5-formyl-6- (methylthio)pyrimidin-4-yl]oxy}-N- [3-(trifluoromethyl)phenyl]acetamide	NH ₂ N N N F F

Table 3

Entry	Name	Structure
47	2-{[4-amino-6-(methylthio)-1,3,5- triazin-2-yl]oxy}-N-[3- (trifluoromethyl)phenyl]acetamide	H ₂ N N O H F F
48	2-{[2-amino-6-(methylthio)pyrimidin-4-yl]thio}-N-[3-(trifluoromethyl)phenyl]acetamide	S S F F F
49	2-amino-4-(methylthio)-6-{[2-oxo-2- (3-oxo-3,4-dihydro-2H-1,4- benzoxazin-6- yl)ethyl]thio}pyrimidine-5- carbonitrile	H ₂ N N S N N O
50	2-[(2-amino-6-chloro-5- formylpyrimidin-4-yl)oxy]-N-[3- (trifluoromethyl)phenyl]acetamide	NH ₂ N N F F
51	2-{[2-amino-5-formyl-6- (phenylthio)pyrimidin-4-yl]thio}-N- [3-(trifluoromethyl)phenyl]acetamide	S S N F F
52	2-{[2-amino-5-(hydroxymethyl)-6-(phenylthio)pyrimidin-4-yl]thio}-N-[3-(trifluoromethyl)phenyl]acetamide	S S N F F F

Table 3

Entry	Name	Structure
53	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [2-methyl-3- (trifluoromethyl)phenyl]acetamide	H ₂ N N N N N N N N N N N N N N N N N N N
54	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [2-(methyloxy)-5- (trifluoromethyl)phenyl]acetamide	H_2N N N N N N N N N N
55	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [2-chloro-5- (trifluoromethyl)phenyl]acetamide	H ₂ N N S N H CI
56	2-{[2-amino-5-(hydroxymethyl)-6-(methylthio)pyrimidin-4-yl]oxy}-N-[3-(trifluoromethyl)phenyl]acetamide	NH ₂ N H F F
57	N ² -(6-amino-1H-pyrazolo[3,4-d]pyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]glycinamide	NH ₂ NH ₂ NH ₂ NH ₃ NH ₄

Table 3

Entry	Name	Structure
58	N ² -[2-amino-5-[(E)-hydrazonomethyl]-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	NH ₂ N N N F F N N N N N N N N N N N N N N N
59	N ² -[2-amino-5-[(E)- (hydroxyimino)methyl]-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	NH ₂ NH ₂ NH ₂ NH ₂ NH ₃ NH ₄
60	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L- alaninamide	S CN CN F
61	2-{[2-amino-5-cyano-6- (methylamino)pyrimidin-4-yl]thio}- N-[3- (trifluoromethyl)phenyl]acetamide	NH N N N S N S F
62	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [2-amino-5- (trifluoromethyl)phenyl]acetamide	H ₂ N N S N N NH ₂
63	2-amino-4-(methylthio)-6-({[6- (trifluoromethyl)-1H-benzimidazol-2- yl]methyl}thio)pyrimidine-5- carbonitrile	H_2N N S N S N F F F

Table 3

Entry	Name	Structure
64	2-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]hydrazinecar boxamide	H ₂ N N H N F F
65	N ² -[5-cyano-2-(methylamino)-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	N E F F F F F F F F F F F F F F F F F F
66	2-{[2-amino-5-cyano-6- (dimethylamino)pyrimidin-4-yl]thio}- N-[3- (trifluoromethyl)phenyl]acetamide	H_2N N S H_2N N S
67	(S)-1-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]prolinamide	H ₂ N N N H F F
68	(2R)-2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]oxy}-N- [3- (trifluoromethyl)phenyl]propanamide	-s N
69	1-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]oxy}-N- [3- (trifluoromethyl)phenyl]cyclopropane carboxamide	-S N

Table 3

Entry	Name	Structure
70	(2S)-2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]oxy}-3- methyl-N-[3- (trifluoromethyl)phenyl]butanamide	H_2N N N N N N N N N N
71	N ² -[5-cyano-2-(dimethylamino)-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]glycinamide	N N N N N N N N N N N N N N N N N N N
72	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2- methyl-N-[3- (trifluoromethyl)phenyl]glycinamide	H_2N N N N N N N N N N
73	1-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]amino}- N-[3- (trifluoromethyl)phenyl]cyclopropane carboxamide	-S N
74	N ² -[2-amino-5-cyano-6- (methylsulfinyl)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L- alaninamide	H ₂ N N N N F F
75	N ² -[2-amino-5-cyano-6- (methylsulfonyl)pyrimidin-4-yl]-N- [3-(trifluoromethyl)phenyl]-L- alaninamide	H ₂ N N H F F

Table 3

Entry	Name	Structure
76	N ² -(5-cyano-2-morpholin-4- ylpyrimidin-4-yl)-N-[3- (trifluoromethyl)phenyl]glycinamide	N H O F F
77	2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]thio}-N- [3,5- bis(trifluoromethyl)phenyl]acetamide	H ₂ N N S N CF ₃
78	N ² -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
79	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[2- (methyloxy)-5- (trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
80	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[2- chloro-5-(trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
81	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-2- methyl-N-[3- (trifluoromethyl)phenyl]alaninamide	H ₂ N N N CF ₃

Table 3

Entry	Name	Structure
82	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-{3-[(4- methylpiperazin-1- yl)carbonyl]phenyl}-L-alaninamide	S CN H N O
83	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-D- alaninamide	H ₂ N N N CF ₃
84	2-[(2-amino-5-cyano-6-morpholin-4-ylpyrimidin-4-yl)thio]-N-[3-(trifluoromethyl)phenyl]acetamide	NH2 N N S H F F
85	(R)-1-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]prolinamide	H ₂ N N N H F F
86	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L- ornithinamide	H_2N N N N N N N N N N
87	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2-[2- (dimethylamino)ethyl]-N-[3- (trifluoromethyl)phenyl]glycinamide	S CN H ₂ N N N O CF ₃

Table 3

Entry	Name	Structure
88	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L- alaninamide	$ \begin{array}{c c} & & \\$
89	N ² -(2,6-diamino-5-cyanopyrimidin-4-yl)-N-[3-(trifluoromethyl)phenyl]-L-alaninamide	H_2N N N N N N N N N N
90	N ² -(2-amino-5-cyanopyrimidin-4-yl)- N-[3-(trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
91	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2- methyl-N-[3- (trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
92	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin 4-yl]-N (3-{[2- (diethylamino)ethyl]oxy}phenyl) L- alaninamide	S CN N N N N N N N N N N N N N N N N N N
93	2-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-1,2- dimethyl-N-[3- (trifluoromethyl)phenyl]hydrazinecar boxamide	H_2N N N N N N N N N N

Table 3

Entry	Name	Structure
94	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- amino-5-(trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
95	ethyl [1-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-2-({[3- (trifluoromethyl)phenyl]amino}carbo nyl)hydrazino]acetate	S CN H ₂ N N N N CF ₃
96	2-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-2- methyl-N-[3- (trifluoromethyl)phenyl]hydrazinecar boxamide	H_2N N N N N N N N N N
97	3,5 diamino 4,6 dimethyl N [3- (trifluoromethyl)phenyl]furo[2,3- b]pyridine 2 carboxamide	H_2N NH_2 H_2 NH_2 CF_3
98	3-amino 4,6-dimethyl-5-nitro-N-[3- (trifluoromethyl)phenyl]furo[2,3- b]pyridine-2-carboxamide	O ₂ N NH ₂ CF ₃
99	N ² -(2-amino-5-cyano-6-hydroxypyrimidin- 4-yl)-N-[3-(trifluoromethyl)phenyl]-L- alaninamide	OH CN H ₂ N N N N CF ₃

Table 3

Entry	Name	Structure
100	N^2 -[5-cyano-2-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]glycinamide	S N N N C N H C C F 3
101	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2- (tetrahydro-2H-pyran-4-ylmethyl)-N-[3- (trifluoromethyl)phenyl]glycinamide	H_2N N N N N N N N N N
102	N ² -(2-amino-5-cyano-6-{[2- (dimethylamino)ethyl]oxy}pyrimidin-4-yl)- N-[3-(trifluoromethyl)phenyl]-L- alaninamide	H_2N N N N N N N N N N
103	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-6-{[(1,1- dimethylethyl)oxy]carbonyl}-N-[3- (trifluoromethyl)phenyl]-L-lysinamide	CF ₃ NH ₂ NH NH NH NH NH NH
104	2-amino-4-(methylthio)-6-(methyl{(1S)-1- [6-(trifluoromethyl)-1H-benzimidazol-2- yl]ethyl}amino)pyrimidine-5-carbonitrile	NC NH2 CF3

Table 3

Entry	Name	Structure
105	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2-[2- (tetrahydro-2H-pyran-4-yl)ethyl]-N-[3- (trifluoromethyl)phenyl]glycinamide	S CN CF3
106	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3-{[2- (diethylamino)ethyl]amino}-5- (trifluoromethyl)phenyl]-L-alaninamide	NH ₂ NH NH ₂ NH NH ₂ NH NH ₂ NH NH ₃ CF ₃
107	2-amino-4-(methylthio)-6-({(1S)-1-[6- (trifluoromethyl)-1H-benzimidazol-2- yl]ethyl}amino)pyrimidine-5-carbonitrile	-S N
108	2-{2-amino-5-cyano-6-[1-(3- trifluoromethyl-phenylcarbamoyl)-1S- ethylamino]-pyrimidin-4-ylamino}-N-(3- trifluoromethyl-phenyl)-2S-propionamide	HN CN CF ₃ CN CF ₃ CF ₃
109	N^2 -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2-methyl-N- (3-methylphenyl)glycinamide	NH ₂ N N N N N N N N N N N N N N N N N N N

Table 3

Entry	Name	Structure
110	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-2-methyl-N- [3-(1-methylethyl)phenyl]glycinamide	$\begin{array}{c c} & & & \\ & & &$
111	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-5- [imino(nitroamino)methyl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	NH ₂ N NH ₂ N NO ₂ CF ₃
112	methyl 3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-L- alanyl}amino)-5-(trifluoromethyl)benzoate	$S \xrightarrow{NH_2} H \xrightarrow{CF_3} CF_3$
113	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-(3- nitrophenyl)-L-alaninamide	S NH ₂ N N N N N N N NO ₂
114	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-lysinamide	S NH ₂ NH ₂ CF ₃
115	N ² -[2-amino-5-cyano-6- (propyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	NH ₂ NH ₂ NH ₂ CF ₃

Table 3

Entry	Name	Structure
116	N ² -[5-cyano-2-{[2- (methyloxy)ethyl]amino}-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	HN N N CF3
117	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-argininamide	NH ₂ NH ₂ NH NH NH CF ₃
118	N ² -[2-amino-5-cyano-6- (methylsulfinyl)pyrimidin-4-yl]-N-2-methyl- N-[3-(trifluoromethyl)phenyl]-L- alaninamide	NH ₂ NH ₂ NH ₂ NH ₂ CF ₃
119	N ² -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-N-2-methyl-N- [3-(trifluoromethyl)phenyl]-L-alaninamide	NH ₂ N N N CF ₃ CCF ₃
120	N ² -[2-amino-5-cyano-6- (propyloxy)pyrimidin-4-yl]-N-2-methyl-N- [3-(trifluoromethyl)phenyl]-L-alaninamide	NH ₂ N N N CF ₃
121	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-2-methyl-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	NH ₂ N N N CF ₃

Table 3

Entry	Name	Structure
122	N ² -{2-amino-5-cyano-6-[(1- methylethyl)oxy]pyrimidin-4-yl}-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	$ \begin{array}{c c} & \text{NH}_2 \\ & \text{N} \\ & \text{N} \\ & \text{N} \\ & \text{CN} \end{array} $ $ \begin{array}{c c} & \text{H} \\ & \text{N} \\ & \text{CF}_3 $
123	N-5-acetyl-N-2-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	NH ₂ NH ₂ NH ₂ NH ₂ CF ₃
124	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-(3- aminophenyl)-L-alaninamide	S NH ₂
125	3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-L- alanyl}amino)-N-[2-(dimethylamino)ethyl]- 5-(trifluoromethyl)benzamide	S NH2 N NH N NH N NH N NH CN CF3
126	2-(methyloxy)ethyl ((4S)-4-{[2-amino-5- cyano-6-(methylthio)pyrimidin-4- yl]amino}-5-oxo-5-{[3- (trifluoromethyl)phenyl]amino}pentyl)carb amate	S CN NH2 CF3
127	2-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]hydrazinecarboxa mide	NH ₂ N H H H CF ₃ CF ₃

Table 3

Entry	Name	Structure
128	1,1-dimethylethyl ((4S)-4-{[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]amino}-5-oxo-5-{[3-(trifluoromethyl)phenyl]amino}pentyl)carbamate	NH ₂ NH ₂ NH ₂ CF ₃
129	N-2-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	NH ₂ NH ₂ NH ₂ CF ₃
130	3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-methyl-L- alanyl}amino)-N-[2- (dimethylamino)ethyl]-5- (trifluoromethyl)benzamide	Chiral S.CH ₃ N CF ₃ CH ₃ CO CH ₃
131	3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-methyl-L- alanyl}amino)-N-[3-(4-methylpiperazin-1- yl)propyl]-5-(trifluoromethyl)benzamide	SCH ₃ Chiral N CH ₃ H CF ₃ H ₂ N

Table 3

Entry	Name	Structure
132	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~2~-methyl- N-{3-[(trifluoromethyl)oxy]phenyl}-L- alaninamide	S.CH ₃ N CH ₃ H CH ₃ O F
133	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-(3- bromophenyl)-N~2~-methyl-L- alaninamide	H ₃ C S CNCH ₃ H Br CH ₃ O
134	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-{2-{[2- (dimethylamino)ethyl]oxy}-5- [(trifluoromethyl)oxy]phenyl}-N~2~- methyl-L-alaninamide	S.CH ₃ N CH ₃ H CH ₃ O CH ₃ O CH ₃ O CH ₃ C.N.CH ₃
135	3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-methyl-L- alanyl}amino)-N-(2-morpholin-4-ylethyl)- 5-(trifluoromethyl)benzamide	S.CH ₃ N CH ₃ H CH ₃ O CH ₃ O CH ₃ O

Table 3

Entry	Name	Structure
136	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N~2~-methyl-N- [3-(trifluoromethyl)phenyl]-L-lysinamide	CH ₃ NH ₂ Chiral N H ₂ N N N F F CH ₃ O
137	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3-{[2- (dimethylamino)ethyl]oxy}-5- (trifluoromethyl)phenyl]-L-alaninamide	H ₂ N N H O F F O N CH ₃ CH ₃ CH ₃ CH ₃
138	(2S)-2-{[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]amino}-3-oxo- 3-{[3-(trifluoromethyl)phenyl]amino}propyl acetate	H ₃ C S O CH ₃ Chiral H ₂ N N N N CF ₃
139	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~1~-[3- (trifluoromethyl)phenyl]-L-glutamamide	H ₃ C. S H ₂ N O Chiral H ₂ N N N CF ₃
140	2-[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]hydrazinecarboxa mide	H ₃ CON HN

Table 3

Entry	Name	Structure
141	3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-L- alanyl}amino)-N-hydroxy-5- (trifluoromethyl)benzamide	S.CH ₃ N CH ₃ H CH ₃ H CF ₃ H O OH
142	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-3- (dimethylamino)-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	H ₃ C S Chiral Chiral Chiral H ₂ N N N H O F F
143	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-5-morpholin-4- yl-N-[3-(trifluoromethyl)phenyl]-L- norvalinamide	H ₃ C·S N H ₂ N N H F F F
144	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~5~-[2- (methyloxy)ethyl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	S.CH ₃ Chiral NH H ₂ N N CF ₃
145	3-({N-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-L- alanyl}amino)-5-(trifluoromethyl)benzoic acid	H ₂ N N N CF ₃ HOOO

Table 3

Ent-	Nama	T
Entry	Name	Structure
146	methyl N~2~-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alpha- glutaminate	H ₃ C. SH ₃ C.O O Chiral H ₂ N N N N CF ₃
147	N ⁵ -(aminocarbonyl)-N~2~-[2-amino-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	ONH ₂ Chiral NH NH NH NH FF FF
148	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	CH ₃ Chiral NH ₂ H ₂ N N N N F F
149	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alpha-glutamine	H ₃ C. S HO O Chiral H ₂ N N N N CF ₃
150	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-serinamide	CH ₃ Chiral CH ₃ CN OH H ₂ N N N OH CF ₃

Table 3

Entry	Name	Structure
151	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-O- (phenylmethyl)-N-[3- (trifluoromethyl)phenyl]-L-serinamide	CH ₃ Chiral Chiral Chiral Chiral
152	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-argininamide	CH ₃ H ₂ N NH Chiral NH NH CH ₃ CF ₃
153	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~2~-methyl- N ⁶ -{[(phenylmethyl)oxy]carbonyl}-N-[3- (trifluoromethyl)phenyl]-L-lysinamide	Chiral HN O O O HN HN F F F F F
154	N-α-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-tyrosinamide	H ₃ C O CN H Chiral H ₂ N N N CF ₃

Table 3

Entry	Name	Structure
155	N ⁵ -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	H ₃ C.S N H ₂ N N N N N N N N N N N N N N N N N N
156	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N~6~,N~6~- dimethyl-N-[3-(trifluoromethyl)phenyl]-L- lysinamide	CH ₃ H ₃ C.N.CH ₃ Chiral
157	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3-[(4- methylpiperazin-1-yl)carbonyl]-5- (trifluoromethyl)phenyl]-L-alaninamide	CH ₃ Chiral N CH ₃ H CF ₃ N CF ₃ N CF ₃
158	3-({N-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-L-alanyl}amino)- N-(3-pyrrolidin-1-ylpropyl)-5- (trifluoromethyl)benzamide	CH ₃ Chiral N CH ₃ H CF ₃ HN O

Table 3

Entry	Name	Structure
159	3-({N-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-L-alanyl}amino)- N-(2-morpholin-4-ylethyl)-5- (trifluoromethyl)benzamide	CH ₃ Chiral N CH ₃ H CH ₃ H CF ₃ HN O
160	3-({N-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-L-alanyl}amino)- N-[2-(dimethylamino)ethyl]-5- (trifluoromethyl)benzamide	CH ₃ Chiral N CH ₃ H CH ₃ H CF ₃ HN O H ₃ C N CH ₃
161	3-({N-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-L-alanyl}amino)- N-[3-(4-methylpiperazin-1-yl)propyl]-5- (trifluoromethyl)benzamide	CH ₃ Chiral N CH ₃ H CH ₃ H CF ₃ HN O H ₂ N N N N N N N N N N N N N

Table 3

Entry	Name	Structure
162	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N~2~-methyl- N ⁶ -{[(phenylmethyl)oxy]carbonyl}-N-[3- (trifluoromethyl)phenyl]-L-lysinamide	CH ₃ HN O CH ₃ HN O FF F CH ₃ O
163	1,1-dimethylethyl ((4S)-4-{[2-amino-5- cyano-6-(ethyloxy)pyrimidin-4-yl]amino}- 5-oxo-5-{[3- (trifluoromethyl)phenyl]amino}pentyl)carb amate	H ₃ C CH ₃ Chiral H ₃ C CH ₃ CH ₃ NH H ₂ N N H F F
164	(2S)-2-{[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]amino}-3-oxo-3- {[3-(trifluoromethyl)phenyl]amino}propyl acetate	CH ₃ CN CN CH ₃ CH ₃ CH ₃ CH ₃ CH ₃ CH ₃ CF ₃
165	phenylmethyl N~2~-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alpha- glutaminate	CH ₃ O O O H ₂ N N N CF ₃

Table 3

Entry	Name	Structure
166	N ² , N ⁵ -diacetyl-N~2~-[2-(acetylamino)-5-cyano-6-(methylthio)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	O CH ₃ Chiral O CH ₃ O CH ₃ Chiral O CH ₃ Chiral
167	2-(methyloxy)ethyl ((4S)-4-{[2-amino-5- cyano-6-(methylthio)pyrimidin-4- yl]amino}-5-oxo-5-{[3- (trifluoromethyl)phenyl]amino}pentyl)carb amate	O O O O CH ₃ Chiral NH H ₂ N N N N CF ₃
168	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-5-morpholin-4-yl- N-[3-(trifluoromethyl)phenyl]-L- norvalinamide	CH ₃ Chiral N N N F F H ₂ N N H O F F
169	N-((4S)-4-{[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]amino}-5-oxo-5- {[3-(trifluoromethyl)phenyl]amino}pentyl)- N,N-dimethylmethanaminium	CH ₃ CH ₃ Chiral N.CH ₃ H ₂ N N N F F
170	Methyl N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alpha- glutaminate	CH ₃ Chiral OH ₃ C·O OH ₃ C·O H ₂ N H CF ₃

Table 3

Entry	Name	Structure
171	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~6~,N~6~- dimethyl-N-[3-(trifluoromethyl)phenyl]-L- lysinamide	H ₃ C. _N .CH ₃ Chiral
172	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N~2~-methyl-N- {3-[(trifluoromethyl)oxy]phenyl}-L- alaninamide	CH ₃ Chiral N CH ₃ H O F CH ₃ O F F
173	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alpha-glutamine	CH ₃ Chiral H ₂ N N N CF ₃
174	N~2~-[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-(3- bromophenyl)-N~2~-methyl-L- alaninamide	CH ₃ Chiral Chiral Chiral Chiral
175	N^2 -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]- N^1 -[3- (trifluoromethyl)phenyl]-L-glutamamide	CH ₃ Chiral O H ₂ N O CN H N CF ₃

Table 3

Entry	Name	Structure
176	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-3- (dimethylamino)-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	CH ₃ Chiral Chiral Chiral Chiral
177	2-(2-amino-5-cyano-6- ethoxypyrimidin-4-ylamino)-5- hydrazinyl-5-oxo-N-(3- (trifluoromethyl)phenyl)pentanamide	CH ₃ O NH ₂ Chiral
178	N ² -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-3- (dimethylamino)-N-[3- (trifluoromethyl)phenyl]-L-alaninamide	H ₃ C. O Chiral N O CH ₃ H ₂ N N N F F H O F
179	N ² -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-N-[3-{[2- (dimethylamino)ethyl]oxy}-5- (trifluoromethyl)phenyl]-L-alaninamide	H ₂ N N H O F F O N CH ₃ CH ₃ CH ₃ CH ₃ CH ₃
180	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3-{[2- (dimethylamino)ethyl]oxy}-5- (trifluoromethyl)phenyl]-L-alaninamide	Chiral Chiral

Table 3

Entry	Name	Structure
181	N^2 -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-N-(3- bromophenyl)- N^2 -methyl-L-alaninamide	H ₃ C. CN _C H ₃ H H ₂ N N N N Br CH ₃ O
182	phenylmethyl N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-alpha- glutaminate	H ₃ C. S O O O H CF ₃
183	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-O- (phenylmethyl)-N-[3- (trifluoromethyl)phenyl]-L-serinamide	H ₃ C·S CN O H ₂ N N CF ₃
184	- N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~5~,N~5~- bis[2-(methyloxy)ethyl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	CH ₃ Chiral
185	1,1-dimethylethyl ((4S)-4-{[2-amino-5- cyano-6-(methyloxy)pyrimidin-4- yl]amino}-5-oxo-5-{[3- (trifluoromethyl)phenyl]amino}pentyl)carb amate	H ₂ N N N CH ₃ Chirat Chirat N O CH ₃ Chirat N O CH ₃ CF ₃

Table 3

Entry	Name	Structure
186	$ m N^5$ -acetyl- $ m N^2$ -[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	CH ₃ O CH ₃ Chirel NH H ₂ N N N CF ₃
187	N ⁵ ~-acetyl- N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	O CH ₃ Chiral NH NH CF ₃
188	N ² -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]- N ² -methyl-N- {3-[(trifluoromethyl)oxy]phenyl}-L- alaninamide	H ₂ N N CH ₃ H OCF ₃
189	methyl 3-({N-[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-L- alanyl}amino)-5-(trifluoromethyl)benzoate	H ₂ N N CF ₃ H CF ₃ H O CF ₃

Table 3

Entry	Name	Structure
190	3-({N-[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-L- alanyl}amino)-N-[2-(dimethylamino)ethyl]- 5-(trifluoromethyl)benzamide	Chiral O.CH ₃ N CH ₃ H CF ₃ O.NH H ₃ C.N.CH ₃
191	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-3-morpholin-4- yl-N-[3-(trifluoromethyl)phenyl]-L- alaninamide	H ₃ C. S N N H F F F
192	N ² -[2-amino-5-cyano-6- (methyloxy)pyrimidin-4-yl]-3-morpholin-4- yl-N-[3-(trifluoromethyl)phenyl]-L- alaninamide	H ₃ C. O Chiral
193	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-3-morpholin-4-yl- N-[3-(trifluoromethyl)phenyl]-L- alaninamide	CH ₃ Chiral N N H F F H ₂ N N H O F
194	N^5 -(aminocarbonyl)- N^2 -[2-amino-5-cyano-6-(ethyloxy)pyrimidin-4-yl]-N-[3-(trifluoromethyl)phenyl]-L-ornithinamide	O NH ₂ Chiral OEt NH H ₂ N N N H F F

Table 3

Entry	Name	Structure
195	N~2~-[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-D-lysinamide	SMe N H F F F F F F F F F F F F F F F F F F
196	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-N-[3- (trifluoromethyl)phenyl]-D-lysinamide	OEt N H ₂ Chiral
197	N ² -[2-amino-5-cyano-6- (ethyloxy)pyrimidin-4-yl]-O-methyl-N-[3- (trifluoromethyl)phenyl]-L-serinamide	CH ₃ Chiral CH ₃ CH
198	N ² -[2-amino-5-cyano-6- (methylthio)pyrimidin-4-yl]-N~5~- (methylsulfonyl)-N-[3- (trifluoromethyl)phenyl]-L-ornithinamide	CH ₃ Chiral O=S=O NH H ₂ N N CF ₃

- 35. (previously presented) A pharmaceutical composition comprising the compound according to claims 1 and a pharmaceutically acceptable carrier.
- 36. (previously presented) A metabolite of the compound or the pharmaceutical composition according to claims 1.

- 37. (previously presented) A method of modulating *in vivo* activity of a kinase, the method comprising administering to a subject an effective amount of a composition comprising a compound according to claim 1 and/or a compound explicitly provided against in claim 1.
- 38. (original) The method according to claim 37, wherein the kinase is p70S6K.
- 39. (original) The method according to claim 38, wherein modulating the *in vivo* activity of p70S6K comprises inhibition of p70S6K.
- 40. (previously presented) A method of treating diseases or disorders associated with uncontrolled, abnormal, and/or unwanted cellular activities, the method comprising administering, to a mammal in need thereof, a therapeutically effective amount of a composition comprising a compound according to claim 1 and/or a compound explicitly provided against in claim 1.
- 41. (previously presented) A method of screening for modulator of a p70S6 kinase, the method comprising combining either a compound according to claim 1 and/or a compound explicitly provided against in claim 1, and at least one candidate agent and determining the effect of the candidate agent on the activity of said kinase.
- 42. (currently amended) A method of inhibiting proliferative activity in a cell, the method comprising administering an effective amount of: the compound according to claims 1 and/or a compound_explicitly provided against in claim 1.
- 43. (previously presented) A method of inhibiting abnormal metabolic activity in a cell, the method comprising administering an effective amount of: the compound according to any of claims 1 and/or a compound explicitly provided against in claim 1.